

27th.—S. S. "Furnesia," in N. 42° 37' to 42° 39', W. 52° 27', passed two icebergs; s. s. "California," at 7.30 a. m., in N. 42° 16', W. 51° 36', passed two icebergs; s. s. "Durham City," passed two very large icebergs, each about one hundred feet high; one at 9.45 a. m., N. 43° 26', W. 49° 30'; the other at 5.30 p. m., in N. 43° 5', W. 51° 55'; s. s. "Westphalia," in N. 42° 50', W. 50° 40', at 8 a. m., passed a small iceberg; temperature of water, 28°; air, 33°; another, thirty-six feet high, in N. 42° 40', W. 51° 20', at 10.35 a. m.; temperature of water, 30°; air, 39°; and in N. 42° 35', W. 52° 04', two from forty to eighty feet high; temperature of water, 42°; air, 42°; s. s. "City of Montreal," passed icebergs, from 1 to 7 p. m., between N. 42° 41', W. 49° 50', and N. 42° 35', W. 52° 14'.

28th.—S. S. "City of Montreal," passed icebergs at 12 m., in N. 42° 18', W. 55° 30'; s. s. "Rhaetia," in N. 47° 26', W. 40° 43'; passed a small piece of ice twelve feet in length; s. s. "Australia," in N. 42° 22', W. 50° 14' passed a small iceberg; temperature of water, 36°; air, 39°; passed another iceberg, seventy feet high and three hundred feet long, in N. 42° 19', W. 51° 42'.

29th.—S. S. "Umbria," between N. 42° 53', W. 50° 19', and N. 42° 14', W. 52° 12', from 12.40 p. m. to 5.10 p. m., passed several icebergs; s. s. "Australia," in N. 42° 19', W. 57° 42', passed an iceberg about seventy feet high.

30th.—S. S. "Venetian," in N. 43° 27', W. 49° 25' at 9.10 a. m., passed an iceberg six hundred feet long, one hundred and fifty feet wide and one hundred and twenty feet high; s. s. "Bracadaile," between N. 45° 43', W. 51° 45' and N. 45° 33', W. 55° 10', from 2.35 p. m. to 3.30 a. m., passed a large iceberg, then passed through small scattering ones and finally passed a very large one; ship "Thos. Hilyard," in N. 42° 20', W. 50° 30', passed an iceberg; s. s. "Norwegian," passed an iceberg at 10 a. m., in N. 42° 19', W. 49° 53', and at 3.30 p. m., in N. 42° 15', W. 51° 04', passed an iceberg and two small pieces of ice.

SIGNAL SERVICE AGENCIES.

Signal Service agencies have been established in the Maritime Exchange buildings at New York City and Philadelphia, and in the Custom-House, Boston, where the necessary blanks and other information will be furnished to ship-masters.

In pursuance of the arrangements made with the Meteorological Office of London, England, there were cabled to that office from New York during April, 1886, four reports concerning storms encountered by vessels in the Atlantic west of the forty-fifth meridian; one message was sent from Boston.

TEMPERATURE OF THE AIR.

[Expressed in degrees, Fahrenheit.]

The distribution of mean temperature over the United States and Canada for April, 1886, is exhibited on chart ii by the dotted isothermal lines; and in the tables of miscellaneous data are given the monthly mean temperatures, with the departures from the normal, for the various stations of the Signal Service.

On chart iv the departures from the normal temperature are illustrated by lines connecting stations of normal or equal abnormal values.

Over the northern districts, east of the Rocky Mountains, the mean temperatures for April, 1886, are above the normal; on the Pacific coast, in the middle slope, middle plateau, and over all southern districts they are below the normal. The most marked departures above the normal occurred in northern Minnesota, where, at Saint Vincent and Moorhead, they amount to 9° 4 and 7° 2, respectively. In the upper Mississippi and upper Ohio valleys and over portions of the lower lake region, New England, and the middle Atlantic states the temperatures generally range from 4° to 5° above the normal.

Over the country where the temperatures are below the normal, departures are generally slight; they nowhere exceed 5°, and for the most part are less than 2°. The departures below the normal are greatest in Florida and along the Gulf coast.

The following are some of the most marked departures from the normal temperature at Signal Service stations:

Above normal.		Below normal.	
Saint Vincent, Minnesota	9.4	Sanford, Florida	4.7
Mount Washington, New Hampshire	7.7	Cedar Keys, Florida	4.6
Moorhead, Minnesota	7.2	San Antonio, Texas	4.2
Pittsburg, Pennsylvania	5.5	Winnemucca, Nevada	3.4
La Crosse, Wisconsin	5.4	New Orleans, Louisiana	3.2
Albany, New York	5.2	Brownsville, Texas	3.1
Buffalo, New York	5.1	Mobile, Alabama	3.1
Bismarck, Dakota	4.6	Galveston, Texas	3.0

DEVIATIONS FROM NORMAL TEMPERATURES.

In the table below are given, for certain stations, as reported by voluntary observers, the normal temperatures for April for a series of years, the mean temperature for April, 1886, and the departures from the normal:

Station.	County.	Normal temperature for April.	Number of years.	Mean temperature for April, 1886.	Departure.
<i>Arkansas.</i>					
Lead Hill	Boone	60.9	4	60.0	- 0.9
<i>California.</i>					
Sacramento	Sacramento	59.3	20	58.4	- 0.9
<i>Connecticut.</i>					
Middletown	Middlesex	45.4	28	49.6	+ 4.2
New Haven	New Haven	46.8	100	48.3	+ 1.5
Thompson	Windham	44.2	30	48.7	+ 4.5
<i>Dakota.</i>					
Webster	Day	43.2	3	49.5	+ 6.3
<i>Illinois.</i>					
Anna	Union	57.7	11	58.2	+ 0.5
Mattoon	Coles	53.0	6	57.0	+ 4.0
Peoria	Peoria	51.9	30	57.7	+ 5.8
Riley	McHenry	44.2	25	47.4	+ 3.2
Sycamore	De Kalb	45.0	4	48.3	+ 2.7
<i>Indiana.</i>					
Lafayette	Tippecanoe	49.9	7	53.9	+ 4.0
Logansport	Cass	53.0	31	57.7	+ 4.7
Spiceland	Henry	49.9	32	53.3	+ 3.4
Vevay	Switzerland	54.8	21	55.9	+ 1.1
<i>Iowa.</i>					
Clinton	Clinton	48.8	8	51.3	+ 2.5
Cresco	Howard	43.9	10	48.1	+ 4.2
Monticello	Jones	48.1	33	50.9	+ 2.8
<i>Kansas.</i>					
Independence	Montgomery	56.9	15	55.3	- 1.6
Wellington	Sumner	55.3	8	54.3	- 1.0
Yates Centre	Woodson	53.6	6	53.7	+ 0.1
<i>Maine.</i>					
Belfast	Waldo	41.1	27	45.0	+ 3.9
Bridgeton	Cumberland	41.5	11	45.3	+ 3.8
Cornish	York	40.4	29	46.1	+ 5.7
Gardiner	Kennebec	41.4	50	44.5	+ 3.1
Orono	Penobscot	40.0	18	43.6	+ 3.6
<i>Maryland.</i>					
Fallston	Harford	49.6	15	52.1	+ 2.5
<i>Massachusetts.</i>					
Amherst	Hampshire	45.2	49	51.3	+ 6.1
Cambridge	Middlesex	44.3	64	49.0	+ 4.7
Fitchburg	Worcester	42.5	30	47.7	+ 5.2
Lowell	Middlesex	45.0	10	50.6	+ 5.6
New Bedford	Bristol	44.5	74	46.9	+ 2.4
Somerset	Bristol	45.4	16	50.2	+ 4.8
Taunton	Bristol	46.5	16	49.1	+ 2.6
Springfield	Hampden	46.0	19	51.7	+ 5.7
Williamstown	Berkshire	43.4	33	48.2	+ 4.8
Worcester	Worcester	44.7	47	48.1	+ 3.4
<i>Nevada.</i>					
Carson City	Ormsby	47.7	7	47.5	- 0.2
<i>New Brunswick.</i>					
Saint John	Saint John	37.4	26	39.1	+ 1.7
<i>New Hampshire.</i>					
Concord	Merrimac	46.8	18	50.4	+ 3.6
Hanover	Grafton	41.3	25	46.7	+ 5.4
<i>New Jersey.</i>					
South Orange	Essex	48.4	16	51.4	+ 3.0
<i>New York.</i>					
North Volney	Oswego	41.3	19	47.0	+ 5.7
Palermo	Oswego	41.3	33	46.4	+ 5.1
Plattsburg Barracks	Clinton	40.7	17	45.3	+ 4.6
<i>Ohio.</i>					
Wauseon	Fulton	46.1	16	50.8	+ 4.7
<i>Pennsylvania.</i>					
Wellsborough	Tioga	43.9	15	52.0	+ 8.1
<i>South Carolina.</i>					
Stateburg	Sumpter	62.1	6	62.6	+ 0.5
<i>Texas.</i>					
New Ulm	Austin	68.3	14	66.6	- 1.7
<i>Vermont.</i>					
Lunenburg	Essex	37.9	38	44.1	+ 6.2
Strafford	Orange	41.1	12	48.3	+ 7.2
<i>Virginia.</i>					
Bird's Nest	Northampton	54.8	18	57.9	+ 3.1
Dale Enterprise	Rockingham	51.7	6	59.1	+ 7.4
Variety Mills	Nelson	54.0	9	54.8	+ 0.8
Wytheville	Wythe	52.1	22	54.0	+ 1.9
<i>West Virginia.</i>					
Helvetia	Randolph	48.2	10	51.5	+ 3.3

* From the "Bulletin of the New England Meteorological Society."

In connection with this subject, the following notes are furnished by voluntary observers:

Dakota.—Webster, Day county: the mean maximum temperature was 10° 9, and the mean minimum 4° 5 above the average for March. The season this spring was about three weeks in advance of that of the three preceding years.

Illinois.—Riley, McHenry county: under the influence of the unusually warm weather, vegetation advanced with unexampled rapidity for the season. No snow fell in April, being the first April without snow, with one exception (1878), since 1870.

Indiana.—Vevay, Switzerland county: the maximum temperature that has occurred in any April for twenty-one years was 97° 0, in 1886; minimum for the same time, 12° 0, in 1875.

Spiceland, Henry county: the highest temperature during April for a period of thirty-two years was 93° 0, in 1855; lowest for same period, 11° 0, in 1857.

Iowa.—Monticello, Jones county: the highest April temperature during a period of thirty-three years was 94° 0, in 1855; lowest in that time, 12° 0, in 1874.

Kansas.—Wellington, Sumner county: the maximum temperature of April, 1880, 92° 0, is the highest that has occurred at this place in April during the past eight years; the minimum for the same time and month is 15° 0, in 1881.

Yates Centre, Woodson county: the season this spring is at least fifteen days later than 1885.

Maine.—Gardiner, Kennebec county: during the past fifty years there have been only five Aprils warmer than this, the mean April temperature for 1840 and 1878 being 45° 3 and 45° 9, respectively; the coldest was in 1874, 35° 0.

Cornish, York county: the highest mean temperature for April in twenty-nine years was 46° 4, in 1878; the lowest during the same period was 34° 1, in 1874.

Maryland.—Fallston, Harford county: the warmest April for fifteen years occurred in 1871, the mean temperature for April in that year being 55° 7; the coldest April for the same period was in 1874, mean temperature being 48° 9.

Massachusetts.—Westborough, Worcester county: the average temperature for the present April, 51° 5, is higher than any April for twenty years.

Worcester, Worcester county: the warmest April during the past fifty years was in 1844, the mean being 54° 0; the coldest was in 1855, the mean being 32° 3. The following further comparisons of April, during the past half century, will be of interest: Mean temperature, 1886, 47° 4; 1885, 42° 9; 1855, 32° 3; 1844, 54°. Minimum temperature, 1886, 28°; 1885, 25°; 1855, 20°; 1844, 18°. Maximum temperature, 1886, 76°; 1885, 78°; 1855, 67°; 1844, 86°. Minimum mean temperature, 1886, 31° 2; 1885, 29° 5; 1855, 24° 5; 1844, 29° 2. Maximum mean temperature, 1886, 65° 5; 1885, 64° 5; 1855, 60° 7; 1844, 73° 5.

Fitchburg, Worcester county: the highest temperature during the month was 78° 0; the lowest, 28° 0.

Michigan.—Thornville, Lapeer county: April was an unusually warm month, the mean being four or five degrees above the normal. The last frost occurred on the night of the 11th.

New York.—Palermo, Oswego county: this is the warmest April in the past fifteen years except 1876, when the mean was 50° 0.

North Volney, Oswego county: the coldest April during the preceding nineteen years was in 1874, the mean being 33° 6. The warmest was 1878, mean being 50° 9.

Ohio.—Wauscon, Fulton county: the mean maximum temperature that has occurred in any April for sixteen years was 54° 8, in 1878; the mean minimum for the same time was 38° 6, in 1874.

Texas.—New Ulm, Austin county: the highest April temperature in fourteen years was 95° 0, in 1880; the lowest was 35° 0, in 1875. The mean maximum temperature during the same period was 77° 4, in 1879; mean minimum was 63° 6, in 1875.

Vermont.—Strafford, Orange county: the mean temperature for the present month, 48° 3, is the highest that has been recorded in any April during the past twelve years; the mean temperature of 1875, 35° 7, was the lowest.

Virginia.—Variety Mills, Nelson county: the highest mean temperature for April during the last nine years, 58° 3, occurred in 1878; lowest mean was 51° 3, in 1881.

West Virginia.—Helvetia, Randolph county: with the exception of 1878, when the mean temperature was 53° 4, this April has the highest mean that has occurred during the last ten years.

RANGES OF TEMPERATURE.

The monthly, and the greatest and least daily ranges of temperature, are given in the tables of miscellaneous meteorological data.

The following are some of the greatest and least monthly ranges at Signal Service stations:

Greatest.		Least.	
Saint Vincent, Minnesota.....	83.6	Fort Canby, Washington Territory ...	25.9
Fort Totten, Dakota.....	82.2	San Diego, California.....	25.9
Moorhead, Minnesota.....	80.7	Port Angeles, Washington Territory ..	27.8
West Las Animas, Colorado.....	76.3	Neah Bay, Washington Territory	29.5
Yankton, Dakota.....	76.2	Pysht, Washington Territory	30.0
Huron, Dakota.....	74.2	Astoria, Oregon.....	31.0
Blismarck, Dakota.....	71.6	Fort Macon, North Carolina.....	32.1
Poplar River, Montana.....	71.0	San Francisco, California.....	34.5

In the following table are given the mean temperatures for the several geographical districts, with the normals and departures, as deduced from Signal Service observations:

Average temperatures for April.

Districts.	Average for April Signal-Service ob- servations.		Comparison of April, 1886, with the average for several years.
	For sev- eral years.	For 1886.	
	°	°	°
New England.....	43.5	46.4	+ 2.9
Middle Atlantic States.....	50.3	52.7	+ 2.4
South Atlantic States.....	61.2	61.2	0.0
Florida Peninsula.....	70.0	66.1	- 3.9
Eastern Gulf States.....	64.9	63.3	- 1.6
Western Gulf States.....	66.5	64.3	- 2.2
Rio Grande Valley.....	75.6	73.4	- 2.2
Tennessee.....	59.5	59.6	+ 0.1
Ohio Valley.....	53.4	55.8	+ 2.4
Lower Lake region.....	44.2	47.8	+ 3.6
Upper Lake region.....	39.4	41.6	+ 2.2
Extreme Northwest.....	38.3	43.0	+ 4.7
Upper Mississippi Valley.....	51.1	54.4	+ 3.3
Missouri Valley.....	48.1	49.7	+ 1.6
Northern slope.....	42.3	44.6	+ 2.3
Middle slope.....	49.7	48.9	- 0.8
Southern slope.....	62.2	61.0	- 1.2
Southern plateau.....	57.9	56.1	- 1.8
Middle plateau.....	48.2	45.8	- 2.4
Northern plateau.....			
North Pacific coast region.....	50.3	49.1	- 1.2
Middle Pacific coast region.....	57.2	56.0	- 1.2
South Pacific coast region.....	61.8	60.6	- 1.2

FROSTS.

Frosts occurred in the various states and territories during the month on the following dates:

Alabama.—Montgomery, 1st, 6th; Birmingham, Greensborough, and Prattville, 1st, 6th, 8th.

Arizona.—Willcox, 1st, 5th, 6th, 7th, 12th, 14th, 15th, 16th, 20th; Fort Grant, 3d, 4th, 5th, 8th; Prescott, 3d, 4th, 5th, 14th, 15th, 16th, 21st, 22d, 24th, 26th.

Arkansas.—Little Rock and Fort Smith, 1st; Lead Hill, 1st, 5th to 8th, 27th.

California.—Sacramento, 2d to 5th, 12th, 13th, 14th; Princeton, Oakland, and Sacramento, 3d, 4th; Red Bluff and San Francisco, 3d; Murietta, 3d, 4th, 5th; San Rafael, 3d, 4th, 12th, 13th; Hydesville, 30th.

Colorado.—1st to 11th, 13th to 17th, 20th, 22d, 23d, 25th to 29th.

Connecticut.—1st, 2d, 8th, 9th, 30th.

Dakota.—1st to 30th.

Florida.—Pensacola, 1st, 6th; Archer, 6th to 9th; Sanford, 7th.

Georgia.—Dahlonega, 1st; Athens, 1st, 2d, 7th, 8th; Forsyth, 1st, 2d; Quitman, 1st, 6th; Atlanta, 1st, 6th, 8th; Savannah, 1st, 7th, 8th, 9th; Milledgeville, 1st, 8th, 9th; Augusta, 8th, 9th.

Idaho.—4th, 13th, 18th, 19th, 20th.

Illinois.—1st to 8th.

Indiana.—1st to 10th.

Indian Territory.—2d to 6th.

Iowa.—1st to 8th.

Kansas.—1st to 7th.

Kentucky.—Richmond, 1st to 8th; Frankfort and Louisville, 8th, 9th.

Louisiana.—Liberty Hill, Luling, and Shreveport, 6th, 7th.

Maine.—3d, 7th, 9th, 11th, 12th, 16th, 17th, 25th, 28th, 29th, 30th.

Maryland.—Woodstock, 9th.

Massachusetts.—2d to 6th, 9th, 15th, 27th, 30th.

Michigan.—1st to 30th.

Minnesota.—1st to 10th, 20th, 24th, 28th.

Mississippi.—Vicksburg, 6th.

Missouri.—Lamar, 1st, 5th, 6th, 7th; Carthage, 5th, 6th, 7th.

Montana.—1st to 10th, 18th, 19th, 20th, 22d, 23d, 26th, 28th, 29th.

Table of comparative maximum and minimum temperatures for April.

State or Territory.	Station.	For 1886.		Since establishment of station.		
		Max.	Min.	Max.	Year.	Min.
Alabama	Mobile	84.0	37.0	90.0	1881, 1883	32.0
Do	Montgomery	84.3	36.5	90.0	1880	30.0
Arizona	Prescott	71.5	26.7	86.0	1879	13.0
Do	Fort Apache	78.7	22.8	89.0	1879	15.0
Arkansas	Fort Smith	85.9	30.1	88.5	1883	35.3
Do	Little Rock	85.8	28.2	94.0	1880	29.0
California	San Francisco	78.7	44.2	81.0	1875	40.0
Do	San Diego	70.6	44.7	87.0	1876	39.0
Colorado	Denver	74.6	20.5	83.0	1874	4.0
Do	Pike's Peak	27.6	4.2	39.0	1876	21.0
Connecticut	New Haven	81.3	25.8	83.0	1885	16.0
Do	New London	77.4	31.5	77.9	1885	19.0
Dakota	Fort Buford	78.6	10.7	92.0	1881	4.8
Do	Yankton	80.1	3.9	89.0	1874	3.0
Delaware	Cape Henlopen	76.4	36.0			
Do	Del. Breakwater			79.0	1880	25.0
District of Columbia	Washington City	88.1	34.5	90.0	1872	22.5
Florida	Jacksonville	85.6	44.0	91.0	1874, 1880	37.0
Do	Key West			91.0	1881	61.0
Georgia	Atlanta	82.5	31.8	86.0	1880	25.0
Do	Savannah	83.4	40.0	89.0	1873	33.0
Idaho	Buhl City	73.7	28.6	80.0	1879	23.0
Do	Lewiston			86.0	1880	30.0
Illinois	Calro	80.5	29.0	89.0	1872	24.0
Do	Chicago	81.3	23.1	83.0	1873	17.0
Indiana	Indianapolis	84.0	24.5	85.3	1883	19.0
Indian Territory	Fort Sill	84.0	27.0	96.0	1880	26.0
Iowa	Dubuque			84.0	1879	14.0
Do	Keokuk	81.9	23.7	85.0	1883	20.0
Kansas	Dodge City	79.0	18.4	92.0	1880	13.0
Do	Leavenworth	87.0	20.5	89.0	1880	13.0
Kentucky	Louisville	85.3	29.7	88.5	1883	21.0
Louisiana	New Orleans	85.5	41.0	86.0	1882	38.0
Do	Shreveport	83.3	37.0	93.0	1880, 1882	32.0
Maine	Eastport	71.3	24.2	66.2	1885	2.0
Do	Portland	73.8	23.4	78.0	1881	14.0
Maryland	Baltimore	87.8	33.8	84.0	1881	23.5
Massachusetts	Boston	84.3	26.9	85.0	1872	11.0
Michigan	Detroit	81.5	22.6	78.5	1883	8.0
Do	Marquette	78.6	7.4	81.0	1877	3.0
Minnesota	Duluth	69.7	9.7	75.0	1881	3.0
Do	Saint Paul	81.3	13.5	82.0	1879, 1882	7.0
Mississippi	Vicksburg	88.0	30.5	91.4	1885	31.0
Missouri	Saint Louis	84.0	24.1	87.5	1883	22.0
Montana	Fort Benton	78.2	19.3	81.0	1880	6.0
Do	Helena	71.2	27.2	73.0	1881	6.0
Nebraska	North Platte	82.0	16.2	82.0	1880	12.0
Do	Omaha	84.6	17.8	89.0	1880	6.0
Nevada	Winnemucca	72.4	19.7	79.0	1881	18.0
New Hampshire	Mount Washington	52.2	2.3	56.5	1885	18.0
New Jersey	Atlantic City	83.4	28.4	79.0	1878	19.0
Do	Sandy Hook	80.0	31.0	80.5	1885	12.0
New Mexico	Santa Fe	72.2	21.5	84.0	1879	11.0
New York	Buffalo	77.6	24.5	82.6	1883	11.0
Do	New York City	84.0	29.4	81.5	1884	20.0
North Carolina	Charlotte	86.6	32.5	85.0	1880, 1881	28.0
Do	Wilmington	86.7	39.4	90.0	1880	28.0
Ohio	Cincinnati	82.9	25.4	85.0	1872, 1873	18.5
Do	Toledo	82.0	21.3	85.0	1872	12.0
Oregon	Portland	73.8	59.9	85.0	1880	28.0
Do	Roseburg	73.5	61.1	84.5	1880	29.0
Pennsylvania	Pittsburg	85.1	29.8	89.2	1885	14.0
Do	Philadelphia	84.4	29.3	87.0	1872	17.5
Rhode Island	Block Island	69.7	31.9	69.9	1885	25.0
South Carolina	Charleston	81.4	39.4	86.4	1884	32.0
Tennessee	Knoxville	84.2	29.3	88.0	1872	24.0
Do	Nashville	84.9	31.5	90.0	1872	25.0
Texas	Fort Davis	84.2	23.8	95.0	1879	27.0
Do	Galveston	80.4	43.2	85.0	1876	44.0
Utah	Salt Lake City	71.5	30.4	83.0	1874	19.0
Virginia	Lynchburg	88.6	31.0	91.5	1873	25.0
Do	Norfolk	87.0	38.1	92.0	1871	27.0
Washington Ter.	Dayton			91.0	1880	21.0
Do	Olympia	72.5	30.2	82.0	1880	28.0
Wisconsin	La Crosse	81.0	18.6	83.0	1879	10.0
Do	Milwaukee	78.8	11.6	82.0	1871	12.0
Wyoming	Cheyenne			80.0	1874	2.0

Nebraska.—1st to 7th, 14th, 17th, 24th, 25th, 27th to 30th.

Nevada.—2d to 5th, 7th to 14th, 18th to 29th.

New Hampshire.—2d, 4th, 5th, 9th, 11th, 12th, 14th, 15th, 18th, 27th.

New Jersey.—4th, 9th, 18th, 30th.

New Mexico.—Puerto de Luna, 1st, 3d, 7th, 10th, 14th, 16th; Fort Stanton, 1st, 4th to 7th, 10th, 16th, 17th, 26th; Santa Fe, 22d, 26th.

New York.—1st to 11th, 28th, 29th, 30th.

North Carolina.—Weldon, 2d, 8th, 9th, 10th; Reidsville, 7th, 8th, 10th; Raleigh, 8th, 9th; Wilmington and Fort Macon, 9th; Lenoir, 20th.

Ohio.—1st to 11th.

Oregon.—3d, 4th, 13th, 18th to 23d, 26th to 30th.

Pennsylvania.—1st to 13th, 17th, 18th.

South Carolina.—Aiken and Spartanburg, 8th; Stateburg, 8th, 9th.

Tennessee.—Memphis, 1st, 3d to 8th; Nashville, 1st, 6th, 8th, 9th; Paris, 6th, 8th; Milan and Chattanooga, 8th; Knoxville, 8th, 9th.

Texas.—Comfort, 4th, 5th; Midland and Fort Davis, 4th, 5th, 6th; San Antonio and El Paso, 5th; Silver Falls and Abilene, 5th, 6th; Corsicana, 6th; Palestine, 6th, 7th.

Vermont.—9th, 15th, 17th, 18th, 25th, 30th.

Virginia.—Variety Mills, 2d, 7th, 10th, 19th; Lynchburg, 7th, 9th, 10th; Marion, 8th; Dale Enterprise, 8th, 9th; Norfolk, Bird's Nest, University of Virginia, and Fort Myer, 9th.

Washington Territory.—4th, 5th, 11th, 12th, 14th, 20th, 21st, 24th, 25th.

West Virginia.—1st, 9th, 10th, 18th, 19th.

Wisconsin.—1st to 13th.

ICE.

Ice formed in the southern parts of the country during the month, as follows:

Atlanta, Georgia, 6th, 8th.

Forsyth, Georgia, 1st, 6th, 7th, 8th.

Nashville, Tennessee, 1st, 6th.

Milan, Tennessee, 1st, 4th.

Knoxville, Tennessee, 6th.

Ashwood, Tennessee, 1st, 6th, 8th.

Paris, Tennessee, 6th.

Wellington, Kansas, 3d, 4th, 5th, 6th, 7th.

Fort Scott, Kansas, 4th.

Lenoir, North Carolina, 1st.

Weldon, North Carolina, 8th, 9th.

Reidsville, North Carolina, 7th, 8th.

Variety Mills, Virginia, 9th.

PRECIPITATION.

[Expressed in inches and hundredths.]

The distribution of rainfall over the United States and Canada for April, 1886, as determined from the reports from more than seven hundred stations, is exhibited on chart iii.

In the following table are shown, for the several geographical districts, the normal precipitation for April; the average for April, 1886, and the excess or deficiency as compared with the normal:

Average precipitation for April.

Districts.	Average for April, Signal-Service observations.		Comparison of April, 1886, with the average for several years.
	For several years.	For 1886.	
	Inches.	Inches.	Inches.
New England	3.96	3.24	-0.72
Middle Atlantic States	3.17	2.93	-0.24
South Atlantic States	4.38	2.89	-1.49
Florida Peninsula	2.77	3.32	+0.55
Eastern Gulf States	5.85	6.10	+0.25
Western Gulf States	4.81	4.34	-0.47
Rio Grande Valley	0.86	0.14	-0.72
Tennessee	5.67	3.76	-1.91
Ohio Valley	3.48	3.82	+0.34
Lower lake region	2.32	2.94	+0.62
Upper lake region	2.27	2.62	+0.35
Extreme northwest	1.85	3.26	+1.41
Upper Mississippi Valley	3.05	3.27	+0.22
Missouri Valley	3.30	2.97	-0.33
Northern slope	1.58	2.71	+1.13
Middle slope	1.77	2.68	+0.91
Southern slope	1.16	0.63	-0.53
Southern plateau	0.45	0.55	+0.10
Middle plateau	1.78	2.90	+1.12
North Pacific coast region	3.45	4.06	+0.61
Middle Pacific coast region	2.79	4.49	+1.70
South Pacific coast region	0.99	1.86	+0.87

The precipitation for April, 1886, has been in excess of the average on the Pacific coast south of Washington Territory, in the Rocky Mountain regions, extreme northwest, Lake region, and over portions of Florida, the middle Atlantic, and east Gulf states. In the lower Mississippi valley, southern slope, west Gulf states, Tennessee, and in the districts on the Atlantic coast north of Florida, except northern New Jersey, the precipi-